

DFWC 2021 – The Year of Recovery?

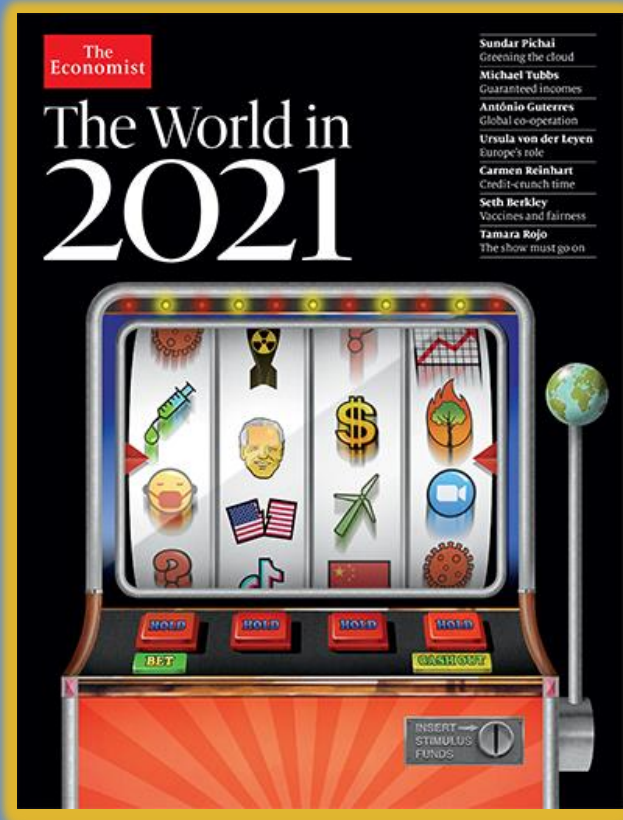
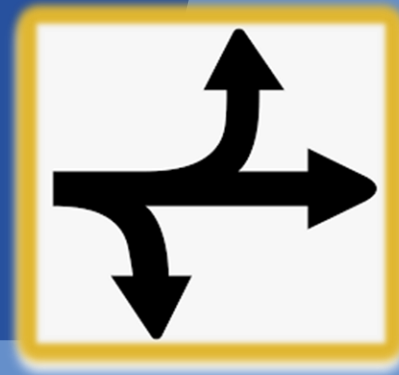
Patrick Lucas
VP Economics

ACI World



Outlook 2021

The known unknowns



“Reports that say that something hasn't happened are always interesting to me, because as we know, there are known knowns; there are things we know we know.

We also know there are known unknowns; that is to say we know there are some things we do not know.

But there are also unknown unknowns—the ones we don't know we don't know. And if one looks throughout the history of our country and other free countries, it is the latter category that tends to be the difficult ones”

*Donald Rumsfeld,
former United States Secretary of Defense (Feb 2002)*

Mastering the crystal ball – Outlook 2021

The known unknowns

“We did not know what last year was going to bring – in Rumsfeldian terms, we faced an unknown unknown. This year is different. We face a known unknown. We know what the issues are, we just do not know how to fix them yet.”

*Andrew Charlton,
Aviation Advocacy (Jan 2021)*



Outlook

Global air transport demand

✈ Where have we been?

- A brief history of airport traffic and revenues amidst the pandemic
- Impact of COVID-19

✈ Where are we now?

- Supply side factors
- Demand side factors
- Outlook for 2021

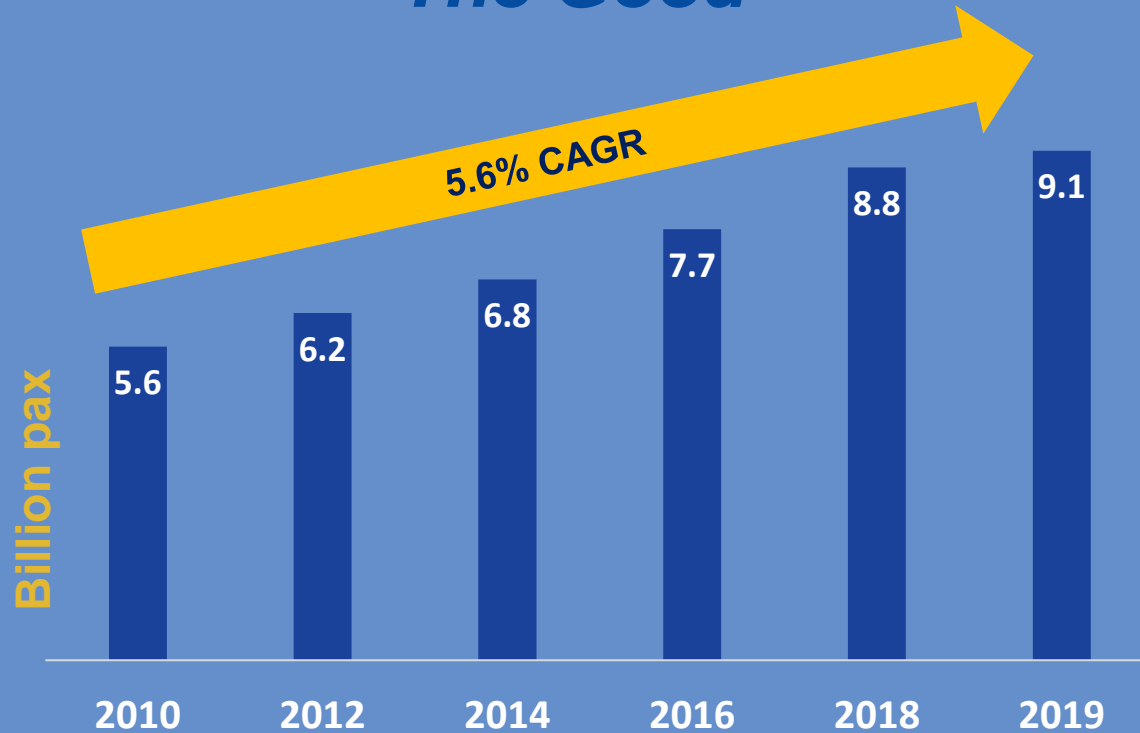
✈ Where are we going?

- Beyond 2021 – Longer term projections & fundamentals
- Industry innovations

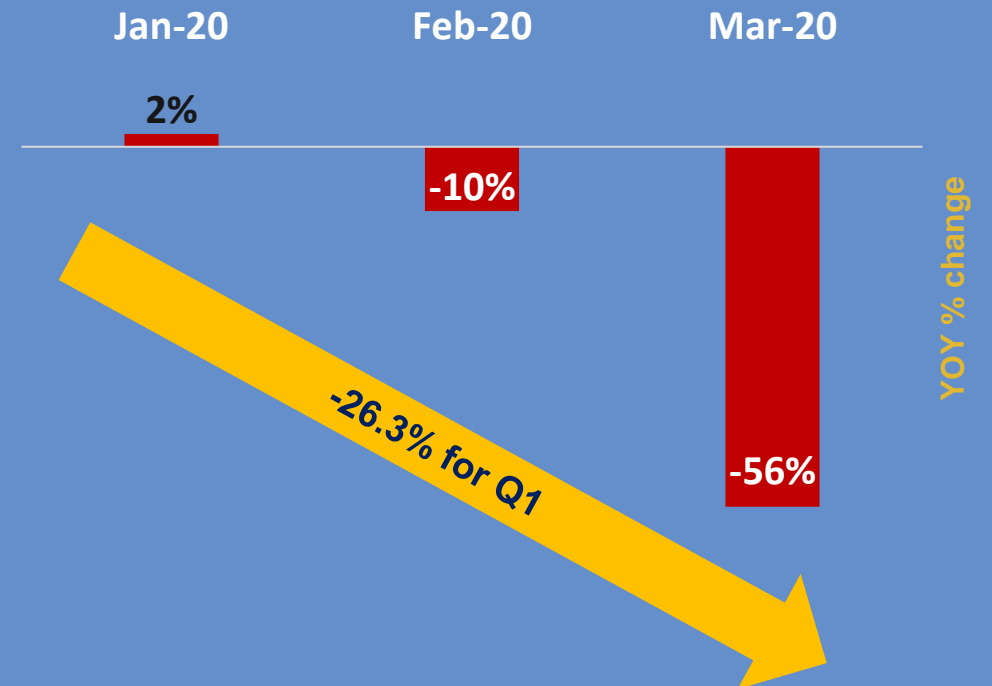
The way we were

Pre-2020 and 2020 Q1 – Global airport pax traffic

The Good



The Bad



Source: ACI World

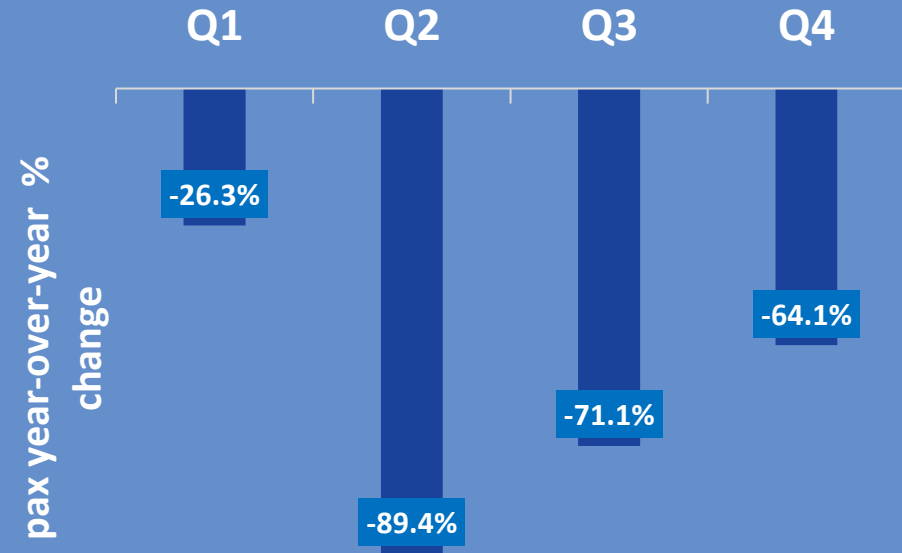
Global passenger traffic in 2020

63% decline as compared to the projected baseline

The Ugly



**94.4% pax
decline in
April**

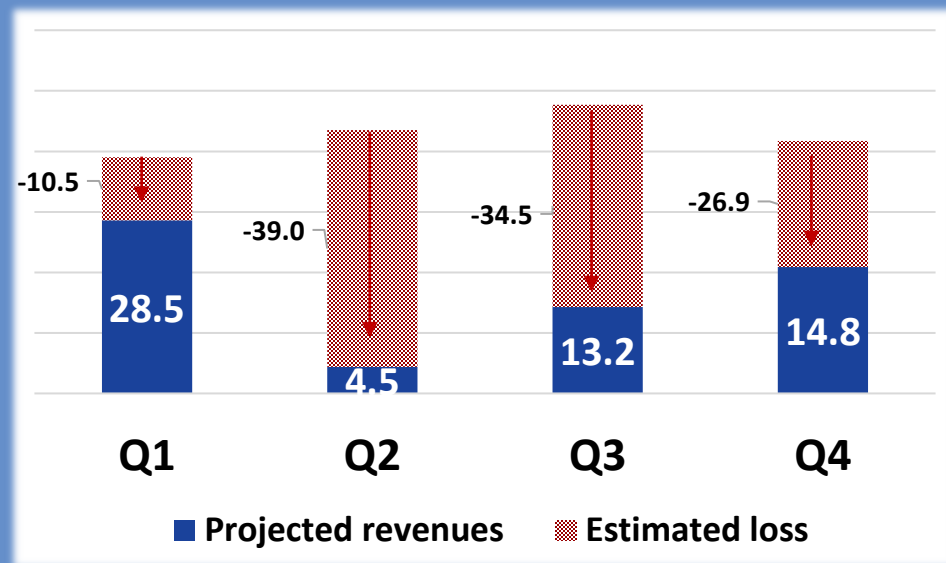


Global

- 9.4 billion pax (projected for 2020)
- 3.4 billion pax (actual for 2020)
- 6 billion pax loss in 2020**

Estimated airport industry losses for 2020

Revenue losses (billions USD)



✈ Total airport industry losses amount to 112 billion USD in 2020 (Largest losses in Q2 2020)

What does
112 billion
USD in
losses look
like?



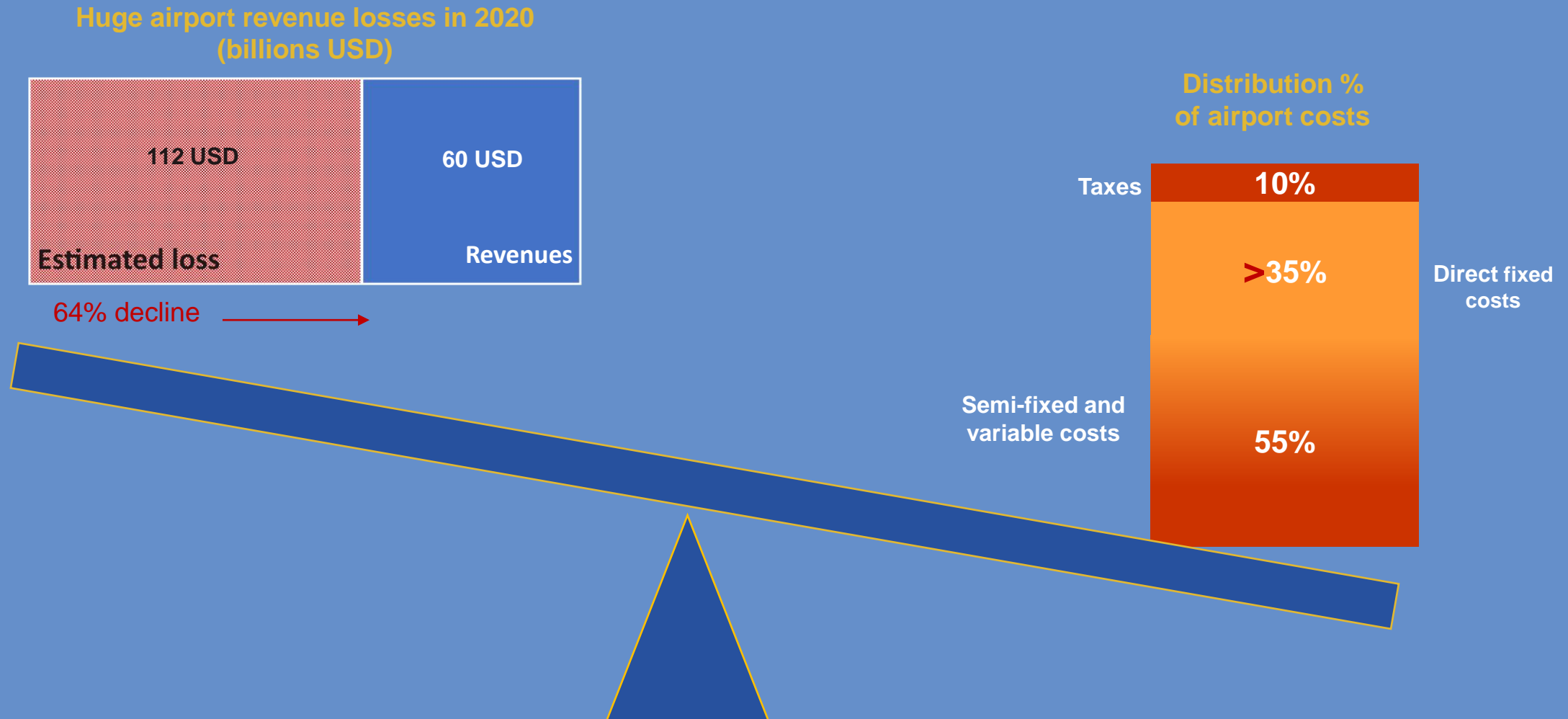
Typical hub airport with over 40 million pax generates **1.3 billion USD per annum**



Revenues of the 85 busiest hubs in the world completely wiped out

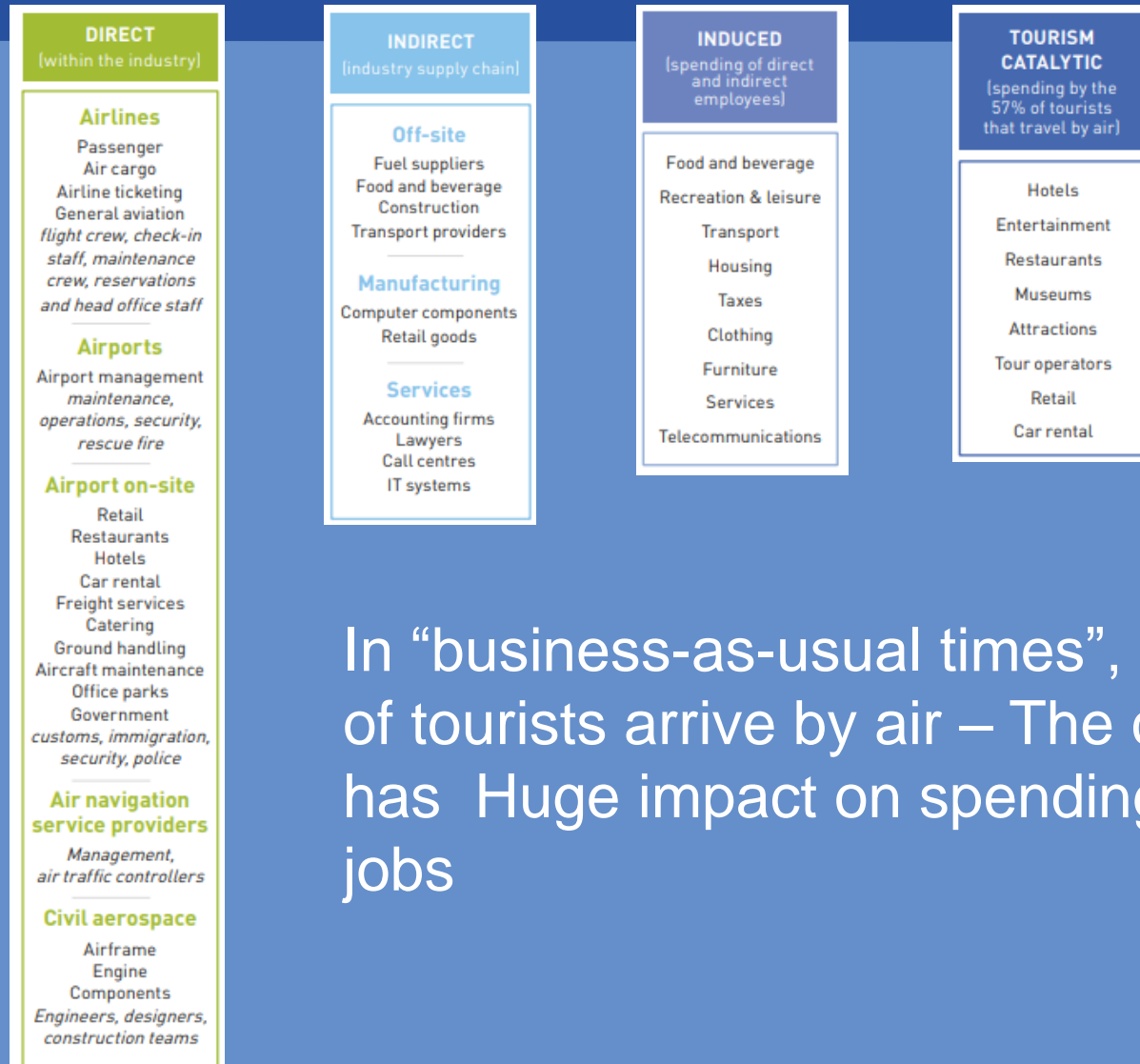
Economics of airports amidst the pandemic

Collapse in revenues with high fixed costs

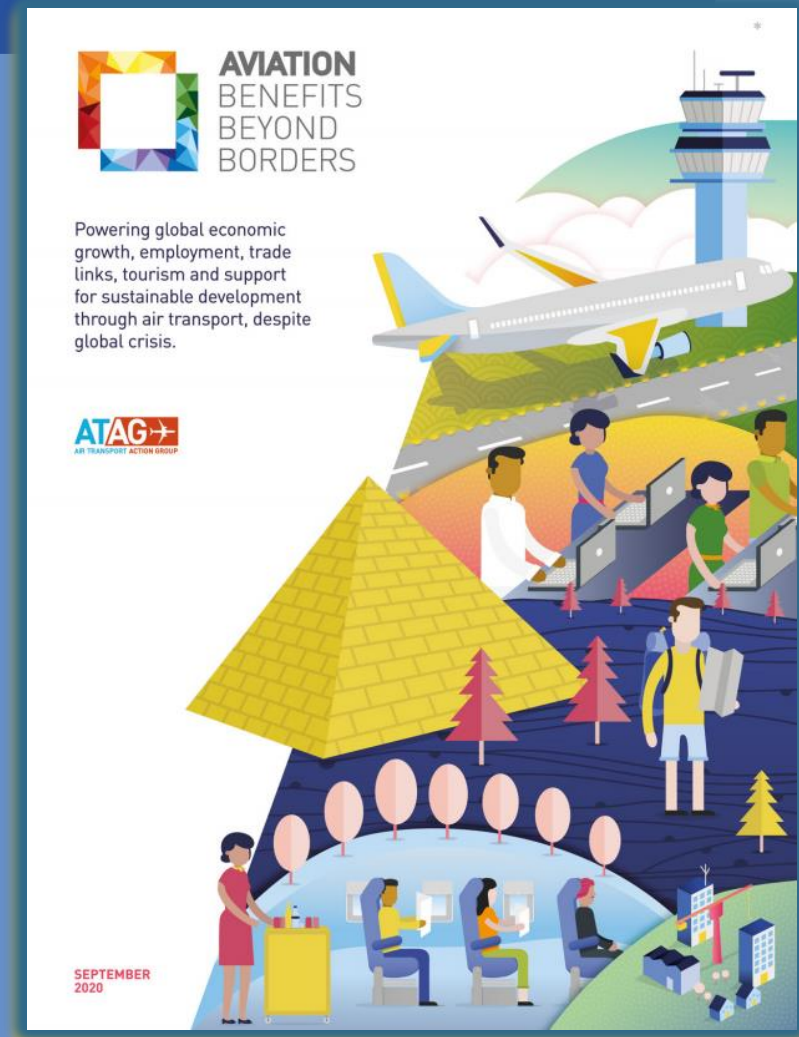


Global socio-economic impact from COVID-19

Pre-COVID versus Post-COVID GDP contribution



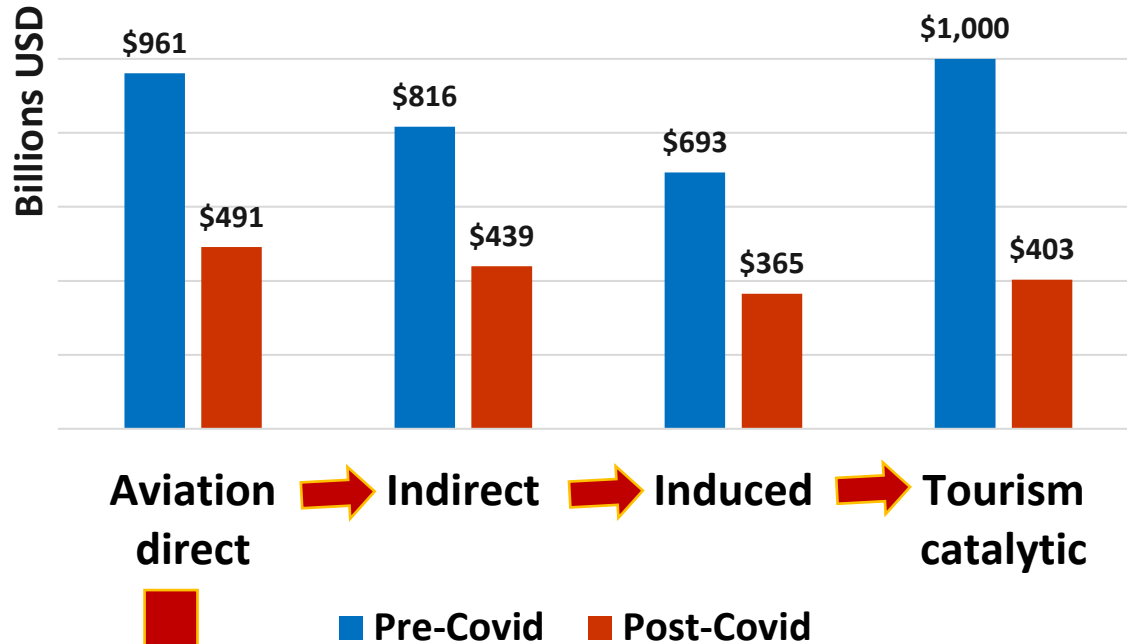
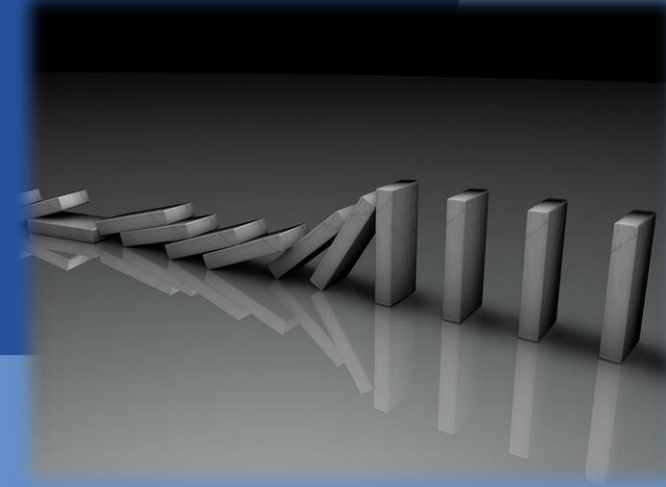
In “business-as-usual times”, 57% of tourists arrive by air – The crisis has Huge impact on spending and jobs



Source: ATAG

Global **economic loss** from COVID-19

Pre-COVID versus Post-COVID GDP contribution



Aviation direct → Indirect → Induced → Tourism catalytic



Equates to the GDP of Indonesia and the Netherlands.

\$3.5 trillion USD
(pre-COVID)



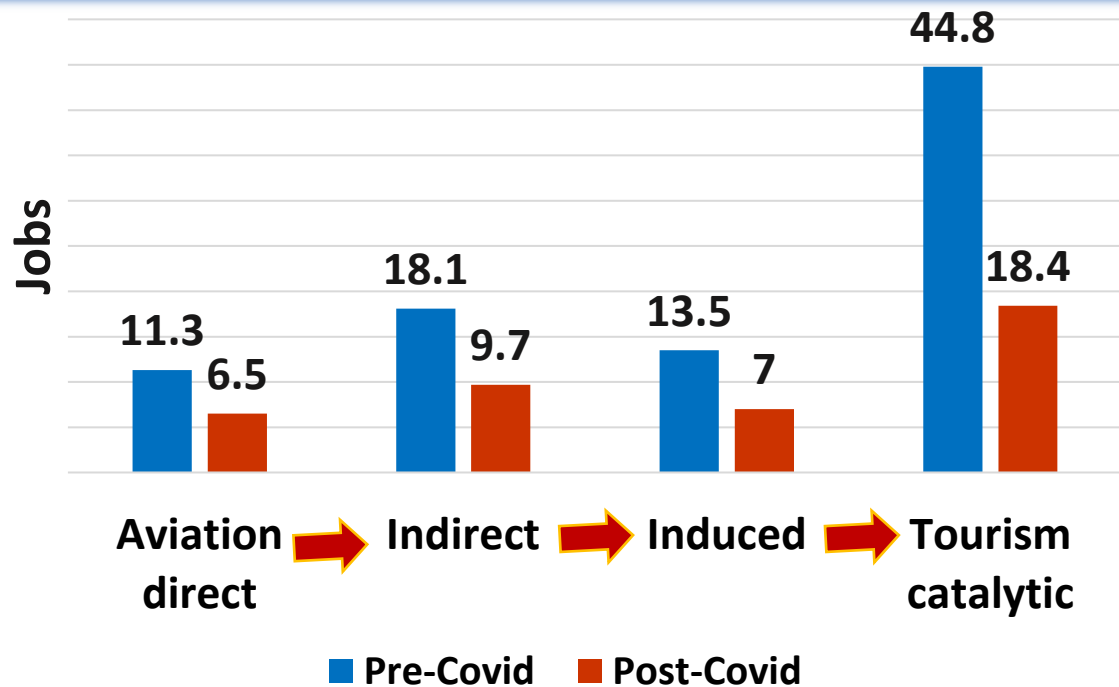
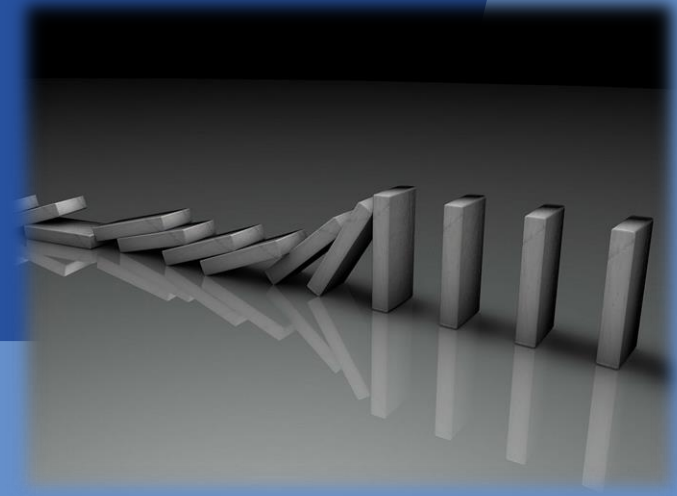
\$1.7 trillion USD
(post-COVID)

LOSS of 1.8
trillion USD

-51.5%

Global **job loss** from COVID-19

Pre-COVID versus Post-COVID jobs supported by aviation



87.7 million jobs
(pre-COVID)

Comparable to the
populations of
**Vietnam, DR Congo
and Germany**

41.7 million jobs
(post-COVID)

LOSS of 46
million jobs
-52.5%

Direct aviation job loss from COVID-19

Pre-COVID versus Post-COVID jobs

Pre-COVID – 55%-60% of jobs with airport operator or on airport site

Direct jobs

648,000

Airport operators¹⁶
(operations, planning, engineering, security)

1.3 million

Civil aerospace¹⁹
(engineers and designers of civil aircraft, engines and components)

5.5 million

Other on-airport¹⁷
(retail, car rental, government agencies such as customs and immigration, freight forwarders, some catering)

237,000

Air navigation service providers²⁰
(air traffic controllers, engineers, executives)

3.6 million

Airlines¹⁸
(flight and cabin crews, executives, ground services, check-in, training and maintenance staff)

4.8 million direct aviation jobs may be lost due to COVID-19 impact
(-43%)

- Airlines: -36%
- Airport operators: -34%
- On airport site: -55%
- Civil aerospace: -11%



Where are we now?

2021 Outlook

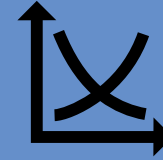


Economics of aviation under COVID-19

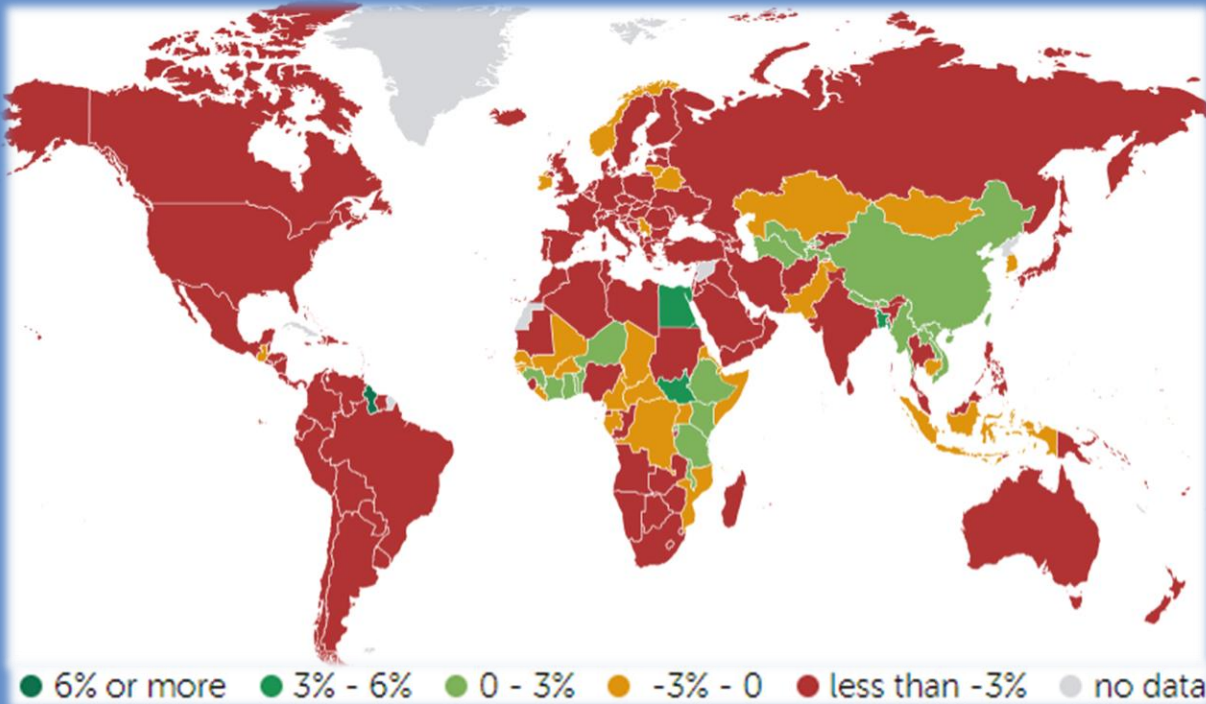
Demand (income, prices, consumer confidence)



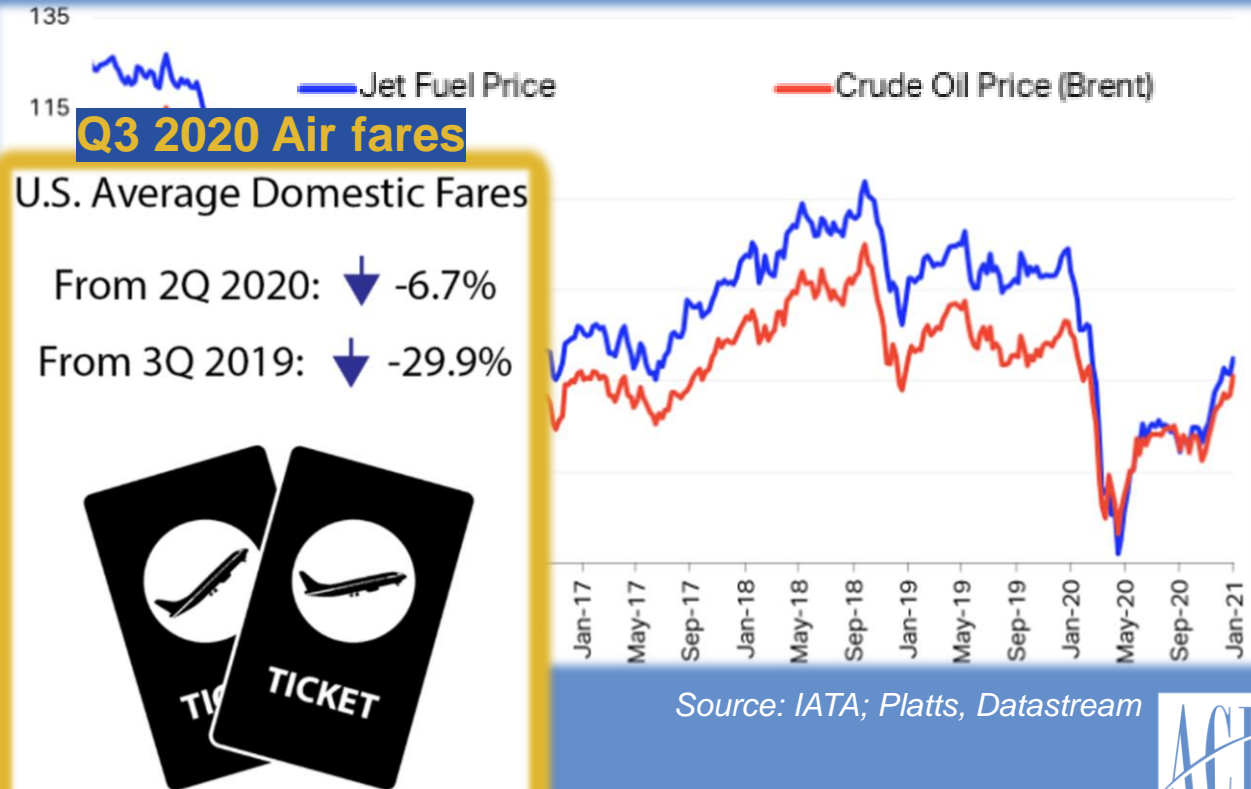
Real GDP growth



Prices (fares & inputs)



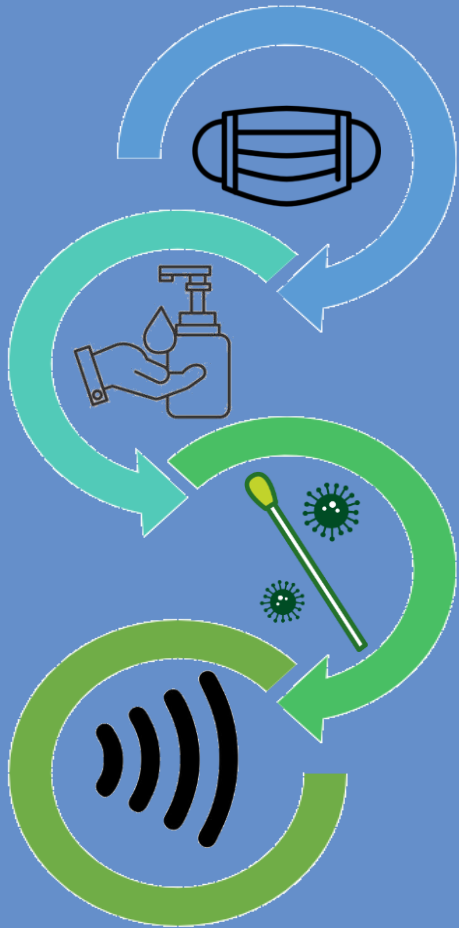
Source: IMF, 2020



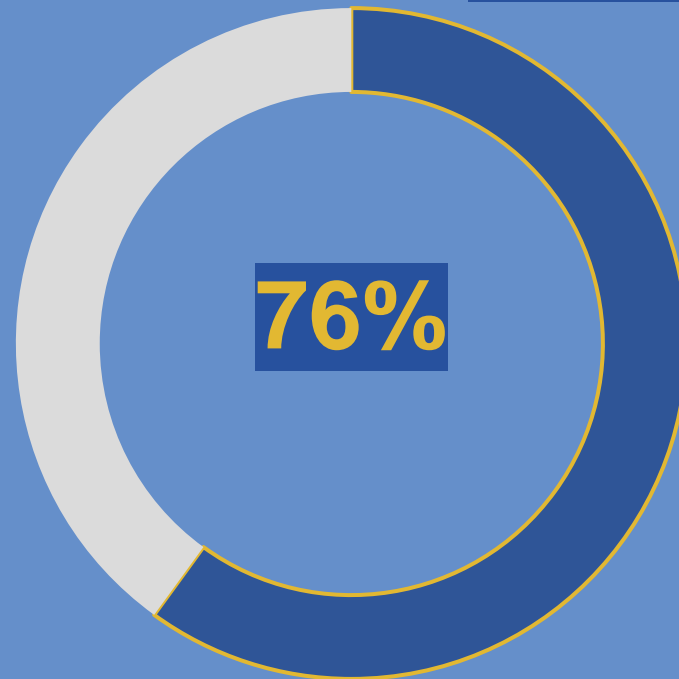
Source: IATA; Platts, Datastream

Economics of aviation under COVID-19

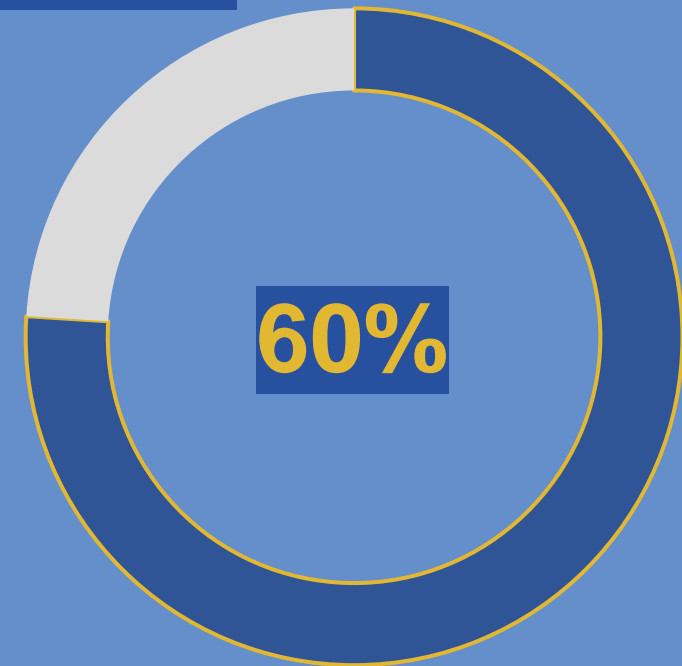
Consumer confidence (Sense of safety, Vaccine rollout)



Pax expectations



Will not travel if self
quarantine needed



COVID-19 infection rates will
dictate travel destinations

Source: ACI World

Sample of 4,100 respondents

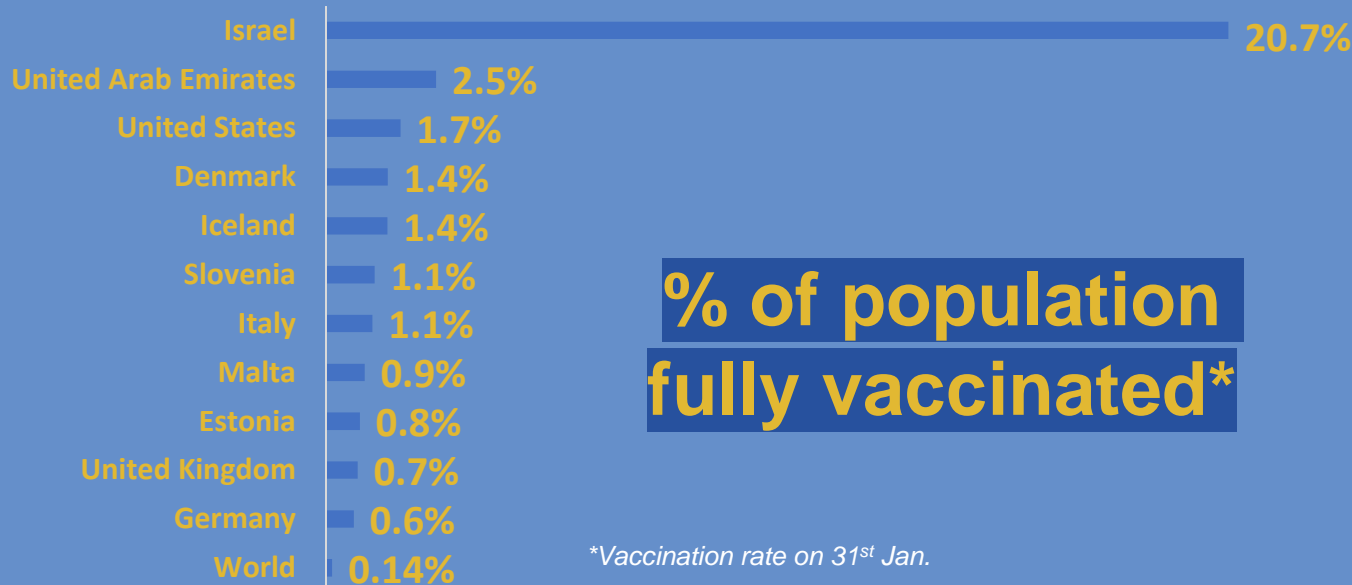
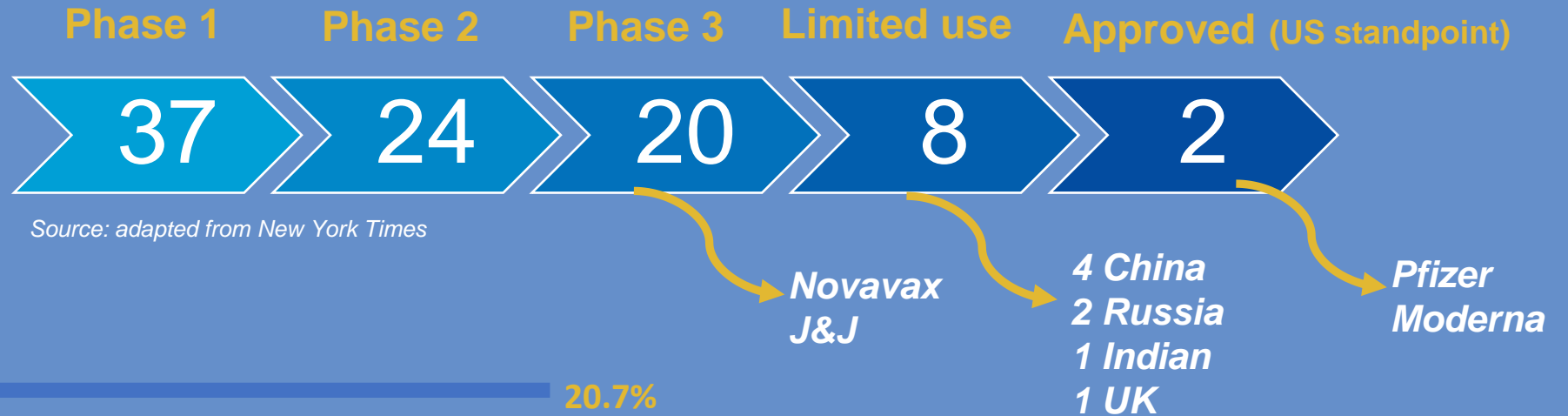
✓ Data collection in September 2020

✓ Worldwide coverage: 6 regions, 30 countries

Economics of aviation under COVID-19

Demand (income, prices, consumer confidence)

Vaccine pipeline



**% of population
fully vaccinated***

*Vaccination rate on 31st Jan.

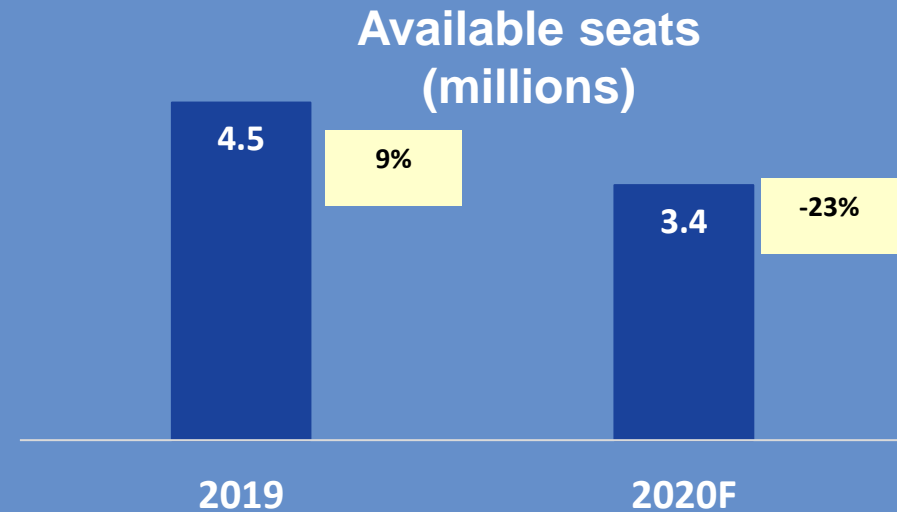
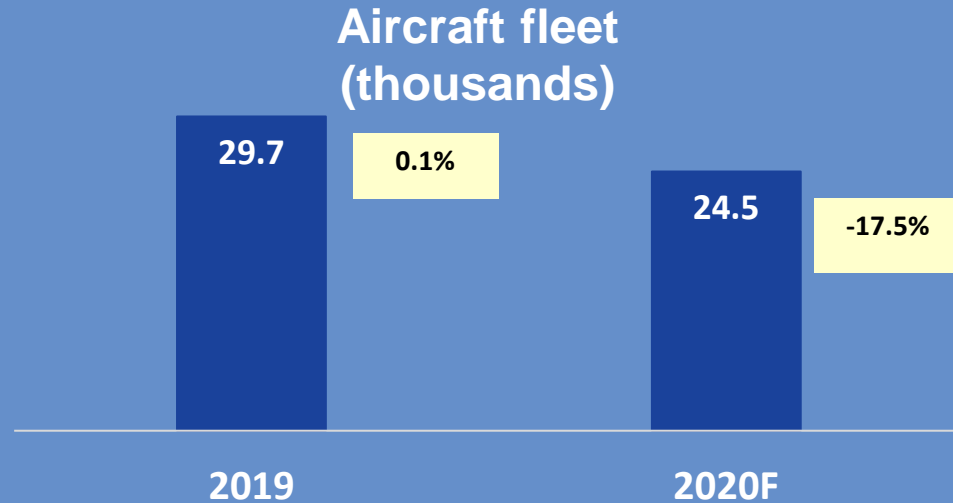
Source: adapted from Oxford University, Our World in Data, 30 January

~70% of the population would need to develop immunity through exposure or vaccination to contain the pandemic and new variants

Supply side factors

Shrinking supply....Shrinking market

Capacity reductions



Source: IATA

- Fleet reductions in terms of delivery cancelation/deferrals, fleet retirement, lease deferrals

Global capacity for the first quarter of the year is now standing at 782.2 million compared to 1.258 billion in 2020

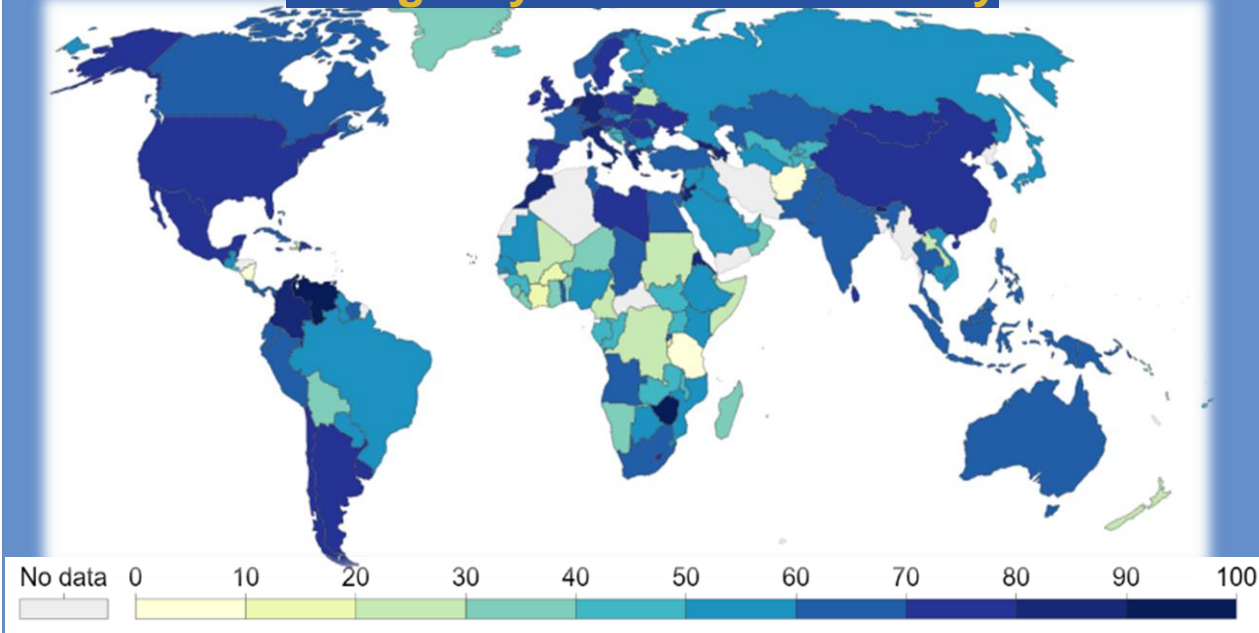


**38% decline in
scheduled seat
capacity in Q1 '21**

Economics of aviation under COVID-19

Supply side (quarantines, travel restrictions, airline fleet)

Stringency index – Present day

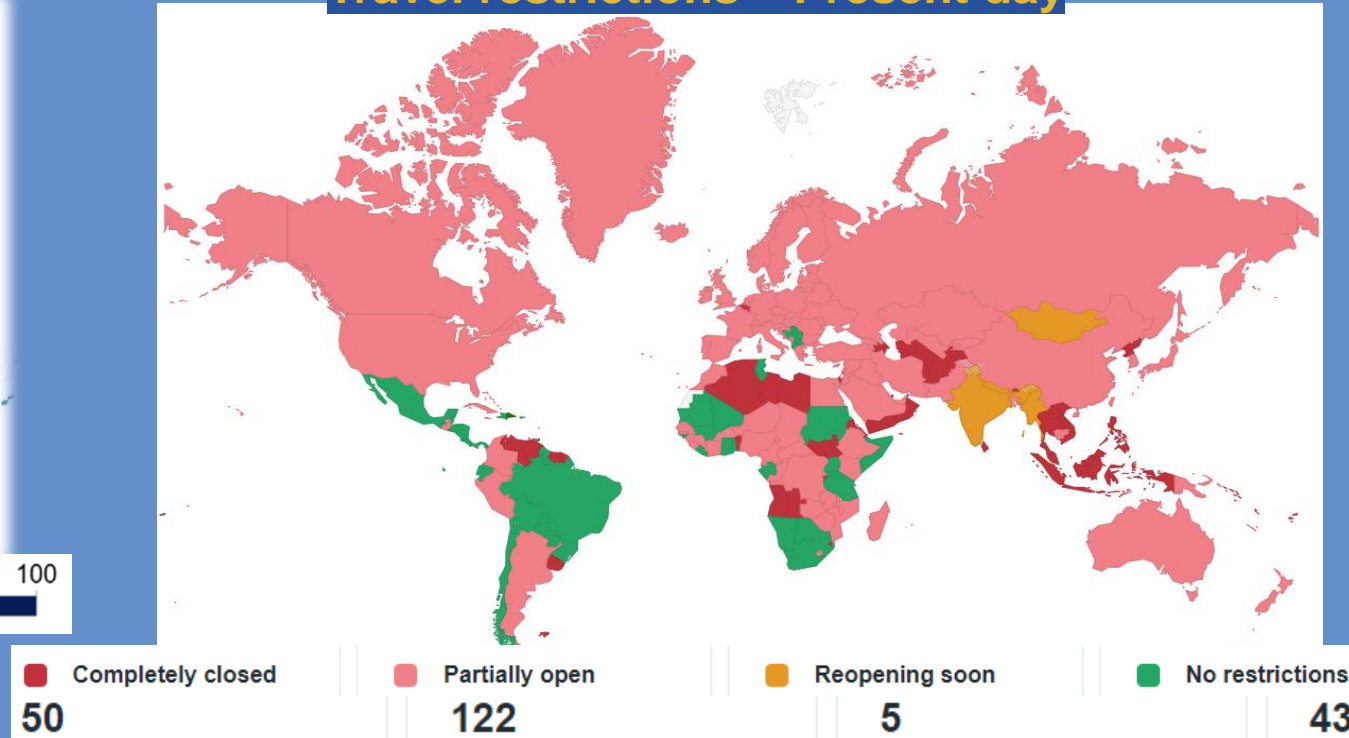


The Stringency Index (0-100)

1. School closures
2. Workplace closures
3. Public events canceled
4. Gatherings restrictions
5. Public transport closed
6. Stay at home policy
7. Domestic travel restrictions
8. International travel restrictions
9. Public info campaigns

Source: Hale, Webster, Petherick, Phillips, and Kira (2020). Oxford University COVID-19 Government Response Tracker

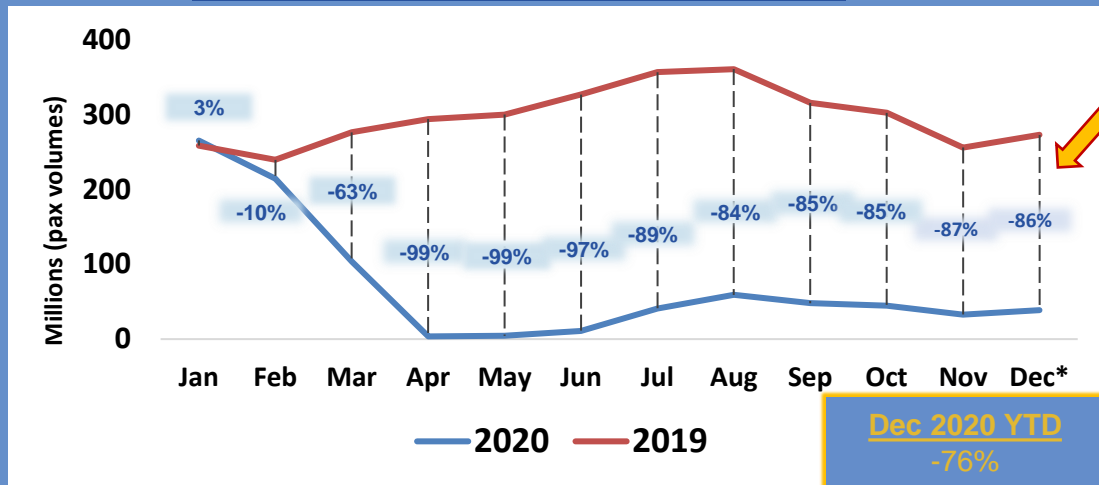
Travel restrictions – Present day



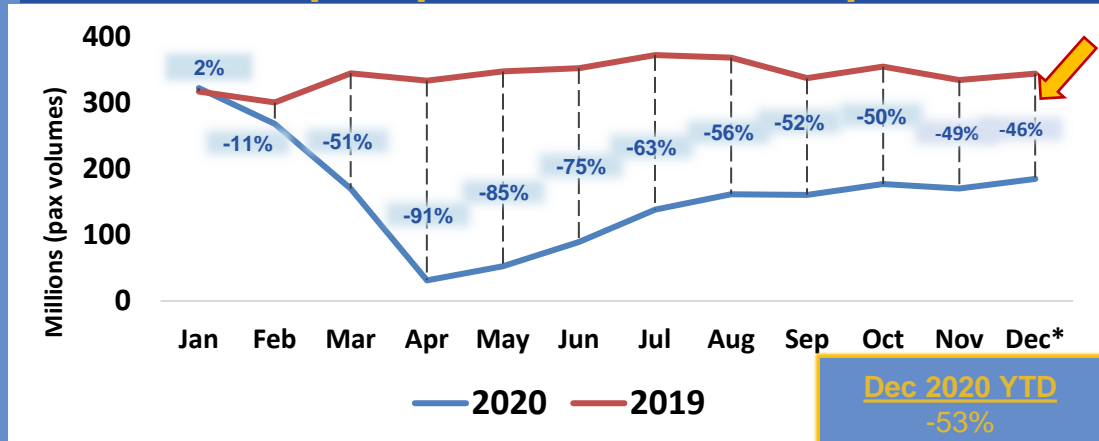
Countries with mandatory quarantines upon arrival are categorized as partially open

Global airport pax traffic – *A tale of two markets*

International airport pax traffic – Quarantines and restrictions

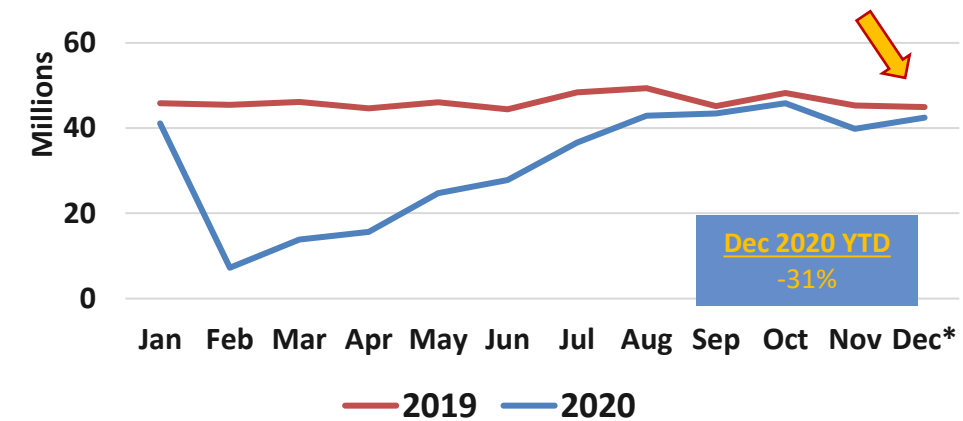


Domestic airport pax traffic – Pent up demand?

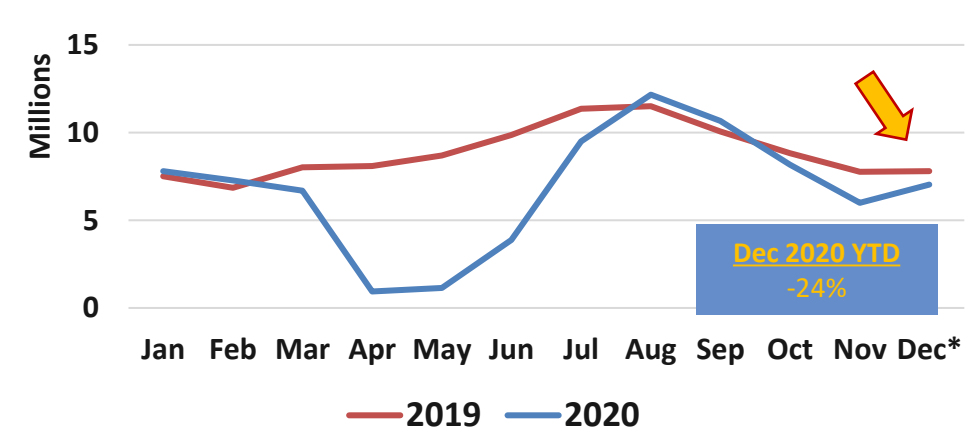


India, Japan, Mexico and Thailand also strengthened domestic pax

China - Domestic



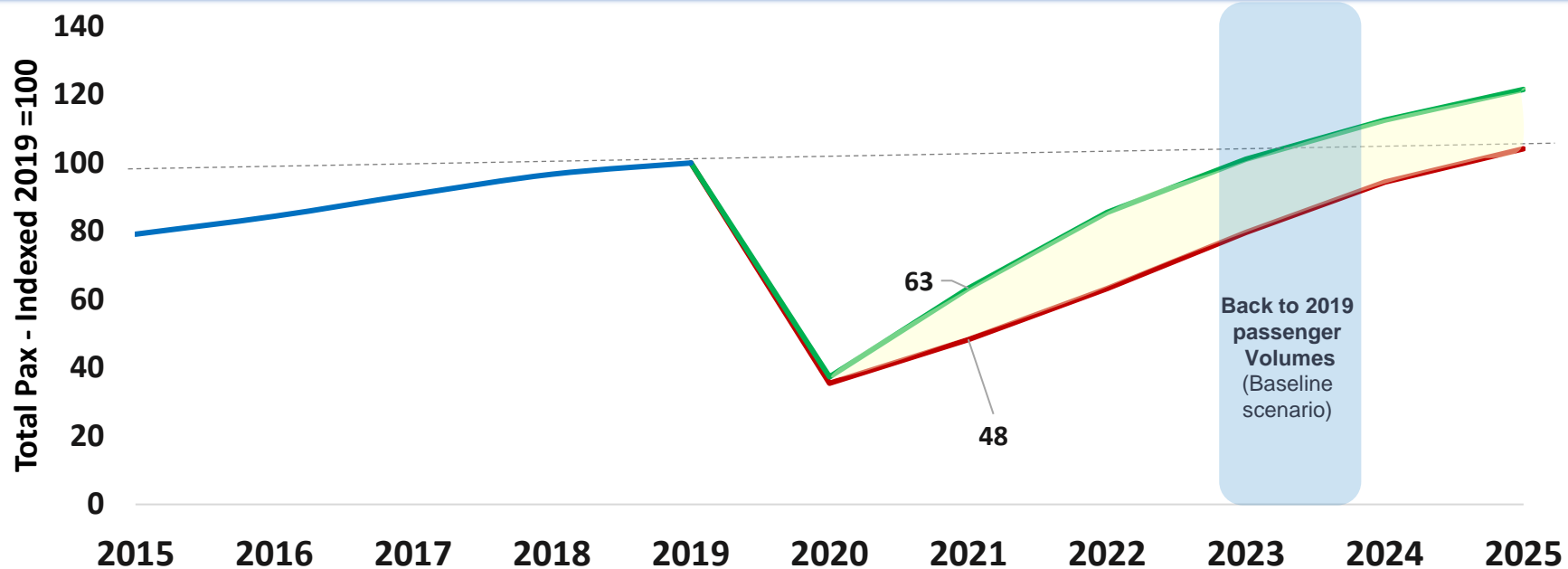
Russian Federation - Domestic



Source: ACI World,
*Estimate

Outlook for pax traffic and recovery

Scenario forecasting – Known unknowns



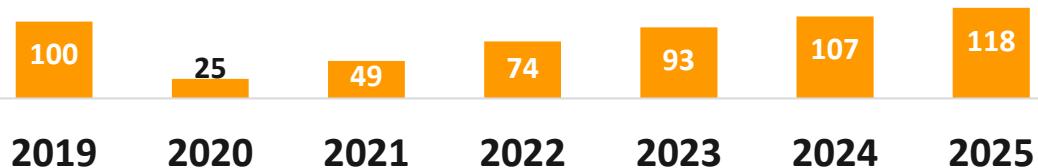
Baseline scenario – 2023 return

- Effective vaccine(s) mostly distributed throughout 2021
- Strong rebound in pax confidence and airlines fleet recovery

Low scenario – 2025 return

- Effective vaccine(s) in 2021 but complex supply chain requirements (cold chain)
- Limited vaccine supply with new variants
- Fear of traveling still present
- Prolonged economic downturn
- Slow airline fleet recovery

International baseline pax forecast
(indexed, 2019=100)



Domestic baseline pax forecast
(indexed, 2019=100)



Where are we going?

Beyond vaccines, COVID-19,
quarantines, testing, etc.

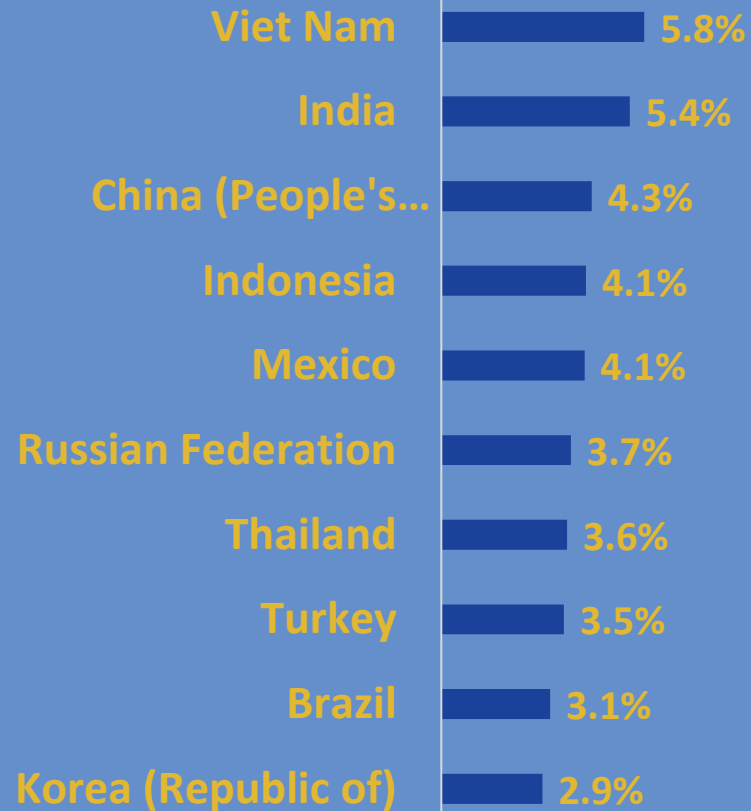


The demographics of aviation –

Pre-COVID 19 Long term fundamentals still apply

Fastest growing emerging markets for pax traffic 2020 – 2040

(over 100 million pax per annum)



**~40% of world's
population
presently resides
in these countries:**



China



India



Indonesia

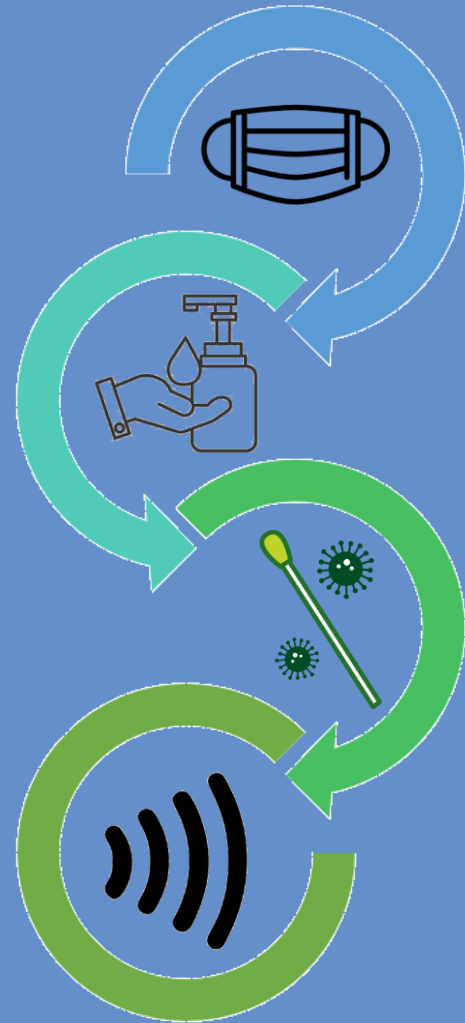


Viet Nam

- 80% of the World's population resides in emerging markets and developing economies
- Growing middle class and propensity to travel by air
- By 2040, 45% of global traffic will pass through airports in the Asia-Pacific region

Impact of COVID-19

Innovations have sped up



New Experience Travel
Technologies (NEXTT)



NEXTT

A vision for the future of air
travel and technologies

Summary –



- ✈ **Impact of COVID-19–**
 - Immediate impact in 2020: 64% decline in pax; 112 billion USD loss in revenues
 - Job loss and economic impact
- ✈ **Demand side factors –**
 - Consumer confidence hinges on perception of “safety” and vaccine rollout
- ✈ **Supply side factors –**
 - Travel restrictions, quarantines and airline capacity reductions (short-medium term)
- ✈ **Testing over quarantines** to ensure “safe” mobility, connectivity and the benefits of aviation
- ✈ **Vaccine deployment and uptake –** The known unknown from a recovery standpoint
- ✈ **Long term fundamentals still apply –** markets with burgeoning middle class and working age populations – Still remains the bedrock for air transport
- ✈ **Industry innovation –**
 - The seamless and worry-free passenger experience

Thank you



<https://store.aci.aero/product/world-airport-traffic-forecasts-2020-2040/>

